and Liu-pa followed by Lüeh-yang, Tsu-nan, Chenan and Hsihsiang, where primitive mining has been carried on by native methods. The total annual production is less than 2,000 tons.

In Kansu, iron ore is mined in the districts of Liang-tang, Hui-hsien, Cheng-hsien, Hsi-ku, Yung-tang, Tien-shui, and Wen-hsien. The total output is about 25,000 tons, while the total reserve of Kansu is said to amount to 12,600,000 metric tons.

Iron ore deposits have been reported in Chinghai, but no further data are available.

In Sinkiang, iron deposits are distributed both in the northern and southern parts of the province. The largest vein is the ore which occurs at Ali in Kucha with a reserve of nearly three million metric tons and a content of thirty percent. It is specularite ore. There is another specularite ore deposit in the hills west of Urumchi. It has a reserve of 750,000 metric tons with a content of twenty-five to forty percent. Other iron ore deposits are found at Pai-cheng, Chang-chi, Fu-yüan, and Ta-cheng. However, the vein of Khara Balgasun mountain near Turfan is historically the best known to the Chinese. The iron mines at Kizil near Yarkand are also of high quality. Extensive iron beds are also reported at Yengi Hissar and in the Ili valley. At present, iron ore is mined mainly in Kashgar. Before World War II, there were some four or five smelting furnaces in operation with a yearly production of 150 tons or iron. Now, according to 1955 reports, in Urumchi a steel factory is producing agricultural implements, etc. There is a factory for repairing automobiles, and one for producing machine tools. They are modest, but this does not mean that other factories, about which the press is silent, do not exist.

With regard to the distribution of iron ore in Sinkiang and the northwest as a whole, the following two tables may be found useful. (See Tables V and VI.)

b. Ferro alloys:

Tungsten, molybdenum, and nickel have been reported in the province of Sinkiang, and manganese in Kansu. With regard to their distribution and reserves very little information is available. Tungsten is produced at Chi-ka-tai, Ho-ssu-tai and Chu-li-kun, north of Wen-chuan-hsien in Sinkiang. A reserve of 8,600 metric tons is estimated for the three deposits; mechanized mining with Soviet equipment has started. Molybdenum is produced at Na-lu-kou and Pa-tu-lu-kou in Ching-ho-hsien. A total reserve of 2,000 metric tons for the former and 7,000 tons for the latter are estimated. The ore is reported to have a content of sixty-five percent WO_3. Manganese ore is found at Hsi-wan of Kan-ku Hsien and Shan-lan-men-shih of Yung-teng-hsien in Kansu. The former has a reserve of 200,000 metric tons with a content of 41.47 percent MnO_2 and the latter

[See p. 131--Analyst]

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TABLE IV. China's Northwest:Coal Reserve Distribution by Provinces.[1]
(Reserve in million metric tons and production in tons)

Province	Anthracite	Bituminous	Total	Production(1955)
Shensi	750	71,200	71,950	650,000
Kansu	59	997	1,656[3]	110,000 (240,000 in 1947)
Ninghsia(now belongs to Kansu)	173	284	457	140,000
Chinghai	240	584	824	40,000
Sinkiang		31,980	31,980[2]	180,000

1. Mining Report, 1945, Chinese Geological Survey, cited by Nelson Dickerman:Natural resources of China, Foreign Minerals Survey, 11, No. 7, (1948) Washington D. C. U.S. Bureau of Mines and also by George B. Cressey: China's 500 Million, 1955.

2. Present coal reserve of Sinkiang is estimated at 35,040 million metric tons.

3. A new discovery of 32 million metric tons of coal in 3arly 1955 should be added to Kansu's total reserve.

TABLE V. Iron Deposits in Sinkiang Province*

Locale	Deposit	Comment
Aksu	Ko-kan-chia	two deposits not of highest quality
	Tieh-pen-erh	" " " " " "
	Ko-la-pu-la-ko	
Ching-chi	Meng-ko-tu-ling	
Fu-yüan	Shui-hsi-kou	seven furnaces installed with 600 catties pig iron capacity
Sui-ting (Ili)	So-erh-ko-ling	
Pai-cheng	Ming-pu-la-kou mtn.	mining area of each said to be less than a mile square
	T'a-erh-chi mtns.	
	Ya-se-la-min mts	
	Neng-li-ha-ta mtn	
	K'o-shih-ko-ko-pa-shih mtn.	

1: Washington S-4 (no date) 1956 AF13 Northwest China AF13 Sinkiang A11

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TABLE V. (Continued)

Locale	Deposit	Comment
Ta-cheng(Chuguchak)	K'o-la-ta-fu-pan to Ch'erh Shan	vein 130 miles long largest in province
T'a-pan-cheng	unnamed	
Yengi Hissar	I-Ko-jih-ya-yen mtn	
	A-ha-mai-ti mtn.	

* Noris, Martin R.: Gateway to Asia, Chap. IX, pp. 113-14.

TABLE VI. Distribution of Iron Ore Reserves of N. W. China by Provinces*

(Reserve in 1000 metric tons, and production in metric tons)

Province	Proved	Estimated	Total	Percent	Production
Shensi	4,847	6,000	10,847	0.50	1,800
Kansu	2,196	310	2,486	0.10	24,000
Ninghsia	5,079	2,500	7,579	0.35	
Chinghai		5,000	5,000	0.23	
Sinkiang	47,537	1,200	48,737	2.23	

*PAI, CC: General Statement on the Mining Industry. Geological Survey of China, special Report, No. 7, Dec., 1945.

N.B. 1. The total iron ore reserve of Shensi has been raised from 0.5% to 2.3% of the nation's total. That would give it an approximate total of 50,000,000 metric tons.

2. The total iron ore reserve of Kansu has been raised to 12,600,000 metric tons.

1: Washington S-4 (no date) 1956 AF13 Northwest China AF13
Sinkiang All

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392 Five tractor repair works were under construction in 1955.
493 Each plant will have sixteen or fifteen mechanized worships. When completed, they will be able to repair as many as 475 tractors and combine harvesters each year in addition to making other farm tools and spare parts.

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327 There are scattered reports on other industrial developments
398 in Sinkiang, such as: (1) the August First Iron and Steel Plant,
399 (2) the October Motor Car Repair and Assembly Shop, (3) the
256 Urumchi Automatic Electric Plant, (4) the modernized August
288 First Flour Mill, (5) the Khotan Silk Factory, (6) Houcheng
399 Airplane Manufacturing Factory, and (7) more than a dozen
237 animal products processing plants, which process skins, furs
439 and intestines for the purpose of exporting them to the Soviet Union. But detailed information on these projects is not available.

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5. Handicrafts.

121 The foregoing analysis concerns itself with the development
178 of modern industries in the Northwest under the Communist
463 regime. But handicrafts still play a very important role in this
N area as they do in other parts of the country. According to a
463 1951 report, the main handicrafts in the Northwest were as follows:

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(1) Cotton cloth. A side line of the peasant, it was produced practically everywhere in the area. However, the more important producing districts are: 1. Sian, Paochi, in Shensi, 2. Tien-
[288] shui, Ho-hsi and Min-chin in Kansu, and 3. Turfan, toqsun and
S Aqsu in Sinkiang. In terms of quantities, the total annual output
N in Shensi is approximately 3,779,670 pieces; in Kansu, 3,505,760
[433] pieces; in Sinkiang, 4,400,000 pieces.

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(2) Pottery. The annual output of pottery in the Northwest amounts to over 4,000,000 pieces. Of that amount Shensi produces
[323] more than 3,000,000 pieces, Kansu, 500,000, Ninghsia, 200,000,
[433] and Sinkiang, 50,000. The more famous pottery-producing districts are: 1. Huang-pao-chen and Chen-lu-chen in Tung-chuan, Shensi, which have been famous since the Sung Dynasty, 2. Yao-kai in Yung-teng, Kansu, 3. Ah-kan-chen, Lanchou, Kansu, and An-kou-yao, Hua-ting, Kansu. The production consists mainly of pots, bowls, tea-pots, plates and tea-cups.

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(3) Paper. While paper is manufactured in many places in this
463 area, the more important paper-producing districts are: 1. Nan-
289 cheng (Han-chung), Shensi, 2. Khotan, Sinkiang, 3. K'ang-cheng and Tien-shui, Kansu, and 4. Ying-chuan, Ninghsia. The main varieties are as follows:

(a) The "rough-edge" paper. Usually used as a writing paper,
N it is produced and consumed mainly in Shensi. The annual output
[433] is about 192,490 bundles.

(b) The "Flax paper." It may be made of white or black flax,

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*668 in understanding the long-run economic potential of this region,
489 it is equally true that there must have been some other reasons
433 forcing them to develop this remote region more swiftly than they might otherwise have done, investing in it sizable amounts of much needed capital backed by considerable forced labor. Other factors, both internal and external, should therefore be taken into consideration. In the first place, Communist China had made a tremendous effort to shift the center of its gravity from the coastal regions into these relatively empty lands bordering Soviet central Asia, perhaps partly as a result of the United Nations embargo and the Korean War. Secondly, the forced pace of development in the Northwest might be partly a defense measure. During the War in Korea it became clear how vulnerable Manchuria was to bombing attacks. Had the United Nations chosen to do so, most of Manchuria's industrial complexes could have been destroyed. But in the Northwest, factories, railways and mines were far
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[648] safer than anywhere else in China. Moreover, this area would assure maximum secrecy for projects which Red China and Russia were reported to have been jointly undertaking. ("I Saw Communist China" by Robert Guillain in the Saturday Evening Post, June 2, 1956. p. 114.)

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*668 Following on the heels of the railway construction work, a
433 huge oil refinery at Lanchou was built. It is also reported that
[382] between Lanchou and the site of the refinery, a road was con-
[491] structed more than twice as wide as Fifth Avenue in New York city, and a large hill thickly covered with houses was completely
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[498] leveled to make the road straight. At Lanchou the railway yard under construction contained fifty kms. of tracks, with modern equipment such as turntables, grain silos, refrigerating plants and the like, all brought from Russia. Along the wide road, the beginning of what is called New Lanchou has arisen. In Sinkiang,
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668 a new city was born in Urumchi, where giant factories have been
433 built, including the Sinkiang Non-ferrous Metals Co., the Sin-
• 327 kiang Petroleum Co., the Sinkiang "August 1st" Iron and Steel
328 Plant, the Sinkiang Machinery Plant, the October Motor Car
382 Repair and Assembly Shop, the Urumchi Automatic Electric Plant,
39 and the like. This accomplishment in industrial construction and
[489] future plans of industrial development are indeed very much tied up with communications development.

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*668 Communist China may very well focus its principal attention
185 on the Northwest during the period of its second Five Year Plan
433 scheduled to begin in 1958, just as the first Five Year Plan con-
[648] centrated on the Northeast. The Northwest might then play a major role in the economic relations between China and Russia, and be industrialized to a level comparable with Manchuria.

It may therefore be concluded that so long as there are both internal and external pressures, and the "lean-to-one-side"